

IRFAN RAHMAN

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EDUCATION

Columbia University, New York, NY

Dec 2026

B.A. in Computer Science

Relevant Coursework: Data Structures & Algorithms (Honors), Advanced Programming, Software Development (Honors), Web Application Development, Discrete Mathematics, Linear Algebra & Probability, Computer Science Theory, Artificial Intelligence, Software-as-a-Service, Advanced Software Engineering, Fundamentals of Computer Systems

SKILLS

Programming: Python, JavaScript, TypeScript, C++, Java, C, Swift, Dart, HTML/CSS, SQL, Bash, MATLAB, LaTeX

Tools: Git, Docker, Node.js, Firebase, Linux, Flutter, TensorFlow.js, Qt, Unity, Vercel

EXPERIENCE

IT Support Technician, *Borough of Manhattan Community College*

Oct 2022 - Present

- Installed and configured 100+ software packages on Windows and macOS systems, reducing update-related support requests by ~30% and improving classroom system stability across 6 departments
- Resolved 15–20 technical issues per week, including AV malfunctions (smartboards, projectors, classroom PCs), documenting recurring problems, and proposing long-term fixes adopted by IT leadership

Software Engineering Fellow, *Headstarter*

Summer 2024

- Built and deployed 3 full-stack web apps using Next.js, TypeScript, Firebase, and Vercel, including an AI chatbot and a document parsing tool; implemented dynamic routing, Firestore DB integration, and responsive UIs
- Engineered front-end and back-end development for a team of 2. Writing modular code, setting up CI/CD pipelines, and optimizing page load times by ~40% through lazy loading and server-side rendering

Software Developer, *Art Beyond Sight*

Summer 2023

- Conducted functional testing on 10+ Drupal modules using Docker and Git to ensure CMS stability. Improved content structure by implementing metadata tagging and taxonomy systems across 150+ pages
- Managed Drupal version upgrades and full-site migration; applied JavaScript to fix 20+ UI and accessibility bugs, enhance responsiveness, and resolve critical security vulnerabilities during live deployment

PROJECTS

Road Test Simulator - C#, Unity | [Project Site](#)

Spring 2024

- Directed a 4-person team to build a Unity-based driving simulator featuring realistic road environments, dynamic traffic signals, and interactive signage; developed as a class project and adopted by the professor for instructional use
- Integrated AI vehicles, pedestrian logic, and responsive UI to simulate real-world traffic. Tested by 50+ students who praised its usability, educational value, and training potential

DementiaGuard (Health Tech Research Assistant) – Swift, Flutter, Firebase, Figma

Fall 2023

- Researched and co-designed DementiaGuard, a cross-platform mobile app prototype built using Swift for iOS and Flutter for Android, aimed at supporting dementia patients with medication tracking, voice reminders, and wearable integration ([View Poster](#))
- Created wireframes using Figma, proposed 5+ core features, and co-presented a research poster at BMCC STEM Showcase to 100+ attendees, receiving faculty backing for future MVP development

Mandelbrot Set Visualizer (Data Science Research Intern) – Python, Matplotlib, NumPy, SciPy

Summer 2023

- Developed a Python-based Mandelbrot Set visualizer using Matplotlib, NumPy, and SciPy to explore fractal geometry, complex dynamics, and visual pattern emergence in iterative systems ([View Poster](#))
- Analyzed mathematical links between chaos theory and topology, presenting findings at a faculty-led research showcase; enhanced problem-solving, numerical methods, and scientific computing skills through exploration

Ecosort - Recycling Classifier Web App - HTML, CSS, JavaScript, and TensorFlow.js

Spring 2023

- Built a real-time recycling classifier using TensorFlow.js and webcam input to identify items with ~85% accuracy; developed during a 2-day hackathon to promote sustainable habits through interactive machine learning
- Led front-end design and layout for a 3-person team, integrating detection logic, UI components, and responsive styling to deliver a smooth and accessible user experience